

WHAT IS CLAIMED IS:

1. A speaker system, comprising:  
air-current generating means for generating an air-current; and  
air-current modulating means for frequency-modulating the air-current generated by the air-current generating means with an audio signal to which the driving of the air-current generating means is input to generate sound waves in accordance with the audio signal.
2. A speaker system according to Claim 1, wherein the air-current generating means includes a pulsometer rotating device for generating an air current, and the air-current modulating means modulates the air current by changing the rotational speed of the pulsometer in one direction in accordance with the audio signal.
3. A speaker system according to Claim 2, wherein the pulsometer rotating device includes an ultrasonic motor as a driving source and an acoustic pulsometer with low moment and high rigidity.
4. A speaker system according to Claim 2, wherein the form of blades/material of the pulsometer are asymmetrical

with respect to the rotational direction, and the pulsometer reproduces sound waves in normal phase efficiently and can suppress the reproduction of sound waves in inverse phase.

5. A speaker system according to Claim 2, wherein the pulsometer rotating device includes an electromagnetic motor as a driving source and an acoustic pulsometer with low moment and high rigidity.

6. A speaker system according to Claim 1, wherein the air-current generating means has a sound absorbing material on the back of a fan for generating air currents.

7. An active indoor low-frequency sound control method in an audio reproducing system, in which a low-frequency sound source for reproduction and a low-frequency sound source for control are provided in a same room, and an adaptive control signal generating circuit is provided for controlling the low-frequency sound source for control,

wherein the control of indoor active low-frequency reverberation, the reduction of standing waves and the reduction of an amount of leaks of low frequency to the outside of the room can be achieved.

8. An active indoor low-frequency reverberation

control method according to Claim 7, wherein a microphone as a control signal source for the adaptive control signal generating circuit is located as required inside or outside of the room.

9. An active indoor low- frequency reverberation control method according to Claim 7, wherein an ultrasonic motor speaker is used as the low- frequency sound source for reproduction and the low- frequency sound source for control.

10. An active indoor low- frequency reverberation control method according to Claim 7, wherein the low- frequency sound source for reproduction also functions as a sound source for control.

11. An active indoor low- frequency reverberation control method, in which an acoustic generating source and an acoustic signal collecting device for collecting sound generated by the acoustic generating source, and a sound source for control are provided in a same room, and an adaptive control signal generating circuit is provided for controlling the low- frequency sound source for control, wherein the control of indoor active low- frequency reverberation, the reduction of standing waves and the

reduction of an amount of leaks of low frequency sounds to the outside of the room can be achieved.

12. An active indoor low- frequency reverberation control method according to Claim 11, wherein ultrasonic motor speakers are used as the low- frequency sound source for reproduction and the low- frequency sound source for control, and the sound sources are arranged symmetrically in the room.

13. An active indoor low- frequency reverberation control system, comprising:

a sound source;

a filter for selecting a target range of frequencies from the sound source;

an adaptive control signal generating circuit; and

low-frequency speakers for sound source reproduction and for reverberation control arranged in a same room,

wherein the control of indoor low- frequency reverberation, the reduction of standing waves and the control of leaks of low- frequency sounds to the outside of the room can be achieved.

14. An active indoor low- frequency reverberation control system according to Claim 13, wherein a microphone

is used as the indoor acoustic information sensor such that acoustic signals can be supplied to the adaptive control signal generating circuit.

15. An active indoor low- frequency reverberation control system according to Claim 14,

wherein an algorithm of the adaptive control signal generating circuit has a self-learning function, and acoustic conditions at a certain or higher quality level by collecting acoustic information of the inside of the room as required during the system boot-up and by monitoring results of reverberation control.